A Work Project, presented as part of the requirements for the Award of a Masters Degree in Management from NOVA – School of Business and Economics

Logoplaste: Internationalization to South Africa through Flexible Packaging

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#1163

A Project carried out on the SME Competitiveness: Internationalization Strategy Field Lab, under the supervision of:

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6th January 2014

Abstract

In emergent countries the extensive adoption of rigid plastic containers may not be possible due to the low income of consumers. Therefore, more than an internationalization plan, the goal of this paper is to study if Logoplaste should offer flexible packaging solutions in order to expand to South Africa. A study of flexible packaging technology was performed in the enterprise. In addition, I addressed the South African packaging and consumer goods markets, the transferability of Logoplaste resources to South Africa with flexible technology and possible modes of entry to the Africa.

Keywords: Logoplaste, South Africa, Flexible packaging

Acknowledgements

I would like to express my special thanks to Professor Sonia Dahab, my advisor, for the opportunity to do this project and for the help and support given through all this process. Secondly, I would like to thank Luis Almeida and Marta de Bottom from Logoplaste, as well as Engineer Paulo Vilaça from Plasteuropa, for all the kindness, time, support and availability to answer any questions.

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1. Logoplaste

1.1. Company description, Mission and Strategic Objectives

In 1976 it was founded Logoplaste, a family-owned Portuguese company. The company founded by Marcel de Bottom with the *hole-in-the-wall* concept became a pioneer in in-house manufacturing in Europe and beyond. This concept refers to the process of building fully dedicated manufacturing sites inside their clients plant or, if not possible, nearby[i]. Logoplaste is an industrial group, which manufactures rigid plastic packaging for 35 companies around the world. It provides rigid packaging for food and beverages, personal care, household care and oil and lubricants sectors (see detailed Logoplaste description in **Appendix I** and product portfolio in **Appendix II)**[1]. Logoplaste produces approximately 10 billion units, divided in 61 plants located in 16 countries and 4 continents with a turnover of around € 450 million, employing 1990 people from 32 different nationalities[ii]. It is one of the world leaders in plastic packaging production.

Logoplaste business mission is "to be the natural choice in the supply of rigid plastic solutions"[iii] through a process where the partnerships with clients are a key factor. The company provides more than rigid plastic packaging. It provides an overall service of research and development, where dedicated manufacturing facilities are designed and built to incorporate and take into account a long-term supply perspective[ii]. For the next 2 years Logoplaste has objectives in different segments: business model, operational excellence, geographies, markets, and others (detailed Logoplaste strategy for the next 2 years - **Appendix III**). Financially, it wants to increase 10% it's Free Cash Flow, improve profitability and keep a 15% annual growth rate in the rigid plastic packaging

[1] Appendices I to XXI are in complementary file "Appendices File: Logoplaste: Internationalization to South Africa through Flexible Packaging"

segment. Strategically, wants to consolidate their position in the current countries where it has operations and increase sales outside the Iberian Peninsula. Logoplaste desires to have international sales represent more than 80% of their turnover[iv].

1.2. Business Model and Competitive Advantage

Logoplaste Business model is based in the *hole-in-the-wall* concept, where there is a fully dedicated plant to each client. If possible, the plant is located just on the other side of the client's wall, if not, it is located nearby. This allowed Logoplaste to be more than a simple supplier and be considered a partner, which offers full integration in the supply chain process and provides just-in-time delivery. This fully dedicated plant involves between €5 million to €20 million in initial investment and usually represents a start of a long-term relationship, which reinforces collaboration[i]. Prices are set according to production volumes and contracts are based on price-per-container. The company has an open-book policy while negotiating prices. This allows their prospective clients to have a better understanding of the proposed prices and contract conditions[i]. Though, Logoplaste offers more than good quality rigid plastic packaging products. It offers a great set of advantages starting with the service, which is based in innovation, quality and performance, to the local multi-skilled management, as well as other services, which can be provided in terms of innovation through, for example, iLab. iLab is another division of Logoplaste that is independent and focus in designing and developing innovative products (detailed Logoplaste business model - **Appendix IV**)[ii].

All these factors characterize Logoplaste business model and are considered their competitive advantages. According to the elaborated VRIO analysis (see **Appendix V**) it is possible to conclude that Logoplaste has competitive advantages that can be sustainable or not. Sustainable competitive advantages are their reputation, which

results from developed long-term relationships and innovation provided with the iLab services, which provide an integrated and differentiated process. The temporary competitive advantages are the open-book policy and just-in-time delivery/ supply chain integration.

2. Internationalization to South Africa

Logoplaste internationalization process has begun in 1992, having operations in 16 countries, but not in Africa[ii]. When faced with the wish to keep its internationalization process, Africa emerges as a very appealing market mainly due to the latest change in the global context. Africa's importance has grown in recent years. It is seen as one of the fastest-growing regions in the world, in addition to being a great source of resources and having a huge market potential[v]. Besides, the consumer spending is increasing, which may lead to an increase in the consumer goods industry as well[vi]. Therefore, expanding to Africa seems very appealing to companies such as Logoplaste, whose major clients are consumer goods companies. When considering internationalizing to Africa, it is key to think on where to expand and how to do it. This report will focus in analyzing if and how Logoplaste should expand to South Africa.

The Republic of South Africa is considered a good starting point to enter the African Market. It is located in the southern tip of Africa and countries such as Namibia, Botswana, Zimbabwe, Mozambique and Swaziland border it. It has an estimated population of almost 52 million (2011 census)[vii] and a high unemployment rate of 24,7%[viii], of which 32,9% is long-term[ix]. GDP per capita estimated for 2013 is $11,750 (75th worldwide)[x]. At the same time, the country government is of crucial importance due to the inclusion of effective regulation of the markets. The New Growth Path, which "sets a vision for creating a competitive, fair and cohesive economy" and puts

employment in the center of the country economic policy, gives companies a sense of security and support when considering a possible expansion to the country[xi].

2.1. PEST Analysis

Political: It is stated in the country constitution that it should be run on a system of co-operative governance. Therefore, "South Africa is a constitutional democracy with a three-tier system of government and independent judiciary"[xii]. The several levels of government are "distinctive, interdependent and interrelated", meaning that all of them, national, provincial or local, have both legislative and executive authority[xii]. South Africa government is constituted of a Parliament, a National Assembly, National Council of Provinces, a President and a Cabinet[xii]. In the law-making process all these institutions have a part in it. South Africa government is considered stable, scoring 0.0 in the government instability/coups factor of the Global Competitiveness Report[xiii]. Though, it scored 16,4% in inefficient government bureaucracy. Judicial independence is one of the indicators where the country scored higher, ranking 27 in the world (out of 144 countries [xiii] . Judicial independence has been considered to have positive implications to FDI [xiv], affecting the increase of the attractiveness to invest. For Logoplaste the Judicial independence, which creates fewer barriers when entering the country, is a positive influence when considering expanding to South Africa.

Economic: South Africa is ranked third-place among the BRICS countries and it is the highest ranked country in sub-Saharian Africa in terms of global competitiveness[xiii]. The ability to stay competitive signals good capacity for future economic development. Part of this competitiveness comes from several benefits that arise from the size of its economy. South Africa has been having a significant economic growth since 2010, on average 3%. However, due to the economic downturn affecting the global economy, it

had smaller growth rates recently (2,1% in 2013)[xv]. South Africa is the world's largest producer of platinum, gold and chromium[xvi]. With several regions with a Mediterranean climate it has become a major wine producer, being wine part of the country history for over 350 years[xvii]. South Africa government has been through its fiscal policy seeking to make their long-run growth consistent, create employment and increase equity in the income distribution[xviii]. National treasury, which is responsible for managing the country national government finances[xix] and is equivalent to the Ministry of Economy, is important when considering South Africa's finances. The Reserve bank aims to achieve and keep price stability to reduce economic uncertainty and protect the purchasing power of the population[xx]. South Africa has a credit ratio of 61.4, which makes South Africa rank 48 among 144 countries[xiii]. This is good for Logoplaste when considering asking for credit. Industries related to mining are important for the country development and the plastics sector, mainly comprised by small firms, does not offer big entry barriers. It only contributes to approximately 0,6% of South Africa's GDP[xxi].

Social: Accordingly with the 2011 census, 51,3% of population was female and 48,7% male. Population is very young, with nearly one third (31,3%) of the population were below 15 years and only 7,7% over 60 years and life expectancy of 52,1 years[xxii]. The country is very diverse in terms of beliefs, cultures and even languages. There are several culturally different groups, African (79,4%), coloured (9,0%), indian/asian (2,5%) and white (9,0%). The diversity in the country led to the existence of 11 official languages, all of them being given equal status. IsiZulu is the most common language in the country (22,7% of the population speak it as a primary language). English is spoken by 9,6% as a first language and has shown increase. It is also the most widely used for either commercial or official communication[xxii]. The sector where the government is

spending more money is education, representing around 20% of total state expenditure and 7% of GDP[xxiii], which indicates significant efforts to improve education levels.

Technological: Concerning FDI and technology transfer it scores 5.0 out of 7 (ranking 38th worldwide), it has a large availability of new technologies with 21% of individuals using Internet. There is a good capacity for innovation (it is 41th place) and the quality of scientific research institutions is also good[xiii]. Energy supply in the country has some problems. In terms of electricity, whose demand has showed an increased growth, supply is still constrained (quality of electricity supply only scores 3.9 out of 7)[xiii]. However, several coal-fired stations are in construction, which will help facing the pressures created by the increasing electricity demand[xxiv]. Concerning communication, it has been an increase in quality and quantity.

2.2. Consumer goods and packaging market in South Africa

It was not possible to gather data from the whole consumer goods market in South Africa. Though, it was found information about the food and beverages industry, which is one of the sectors that Logoplaste provides packaging for. According to Euromonitor International (2011), the packaged food market is expected to grow 37,7% between 2010-2012 (expected compounded annual growth rate of 6,6%) being dairy, oil and fats and baby food some of the packaged foods that are expected to grow at higher rates, 43,4%, 43,3% and 51,9% respectively (**Appendix VI**). This shows the potential for an increasing demand for these products packaging. Besides, dairy, sauces and seasonings are among the "Top 10 categories for New Packaged Food Product Launches" (**Appendix VII**)[xxv] that may imply the selection of products in these categories will be increasing and so, demand for packaging will also increase. It is important to prompt that in the dairy category Logoplaste already provides rigid packaging. This can

reassure South African producers that the company has acquired knowledge on how to produce packaging for it, so, it is already aware of safety and quality requisites of dairy products. In addition, when analysing the manufacturing industry in the country (**Appendix VIII**) it is possible to see that in 2010, food and beverages represented 22,1%, with an underutilisation of 18,2% mainly due to insufficient demand [xxvi] (**Appendix IX**). This may change due to the expected increase of consumer expenditure. Concerning the detergents industry, no information was found. However, with the increase in the average disposal of south Africans since 1995 and the increase in the GDP per capita from US$ 5 494 in 2009 to US$ 7 134 in 2010[xxvii], it is possible to predict that the percentage of income spent in food and household care will increase. Plastics industry has 15,7% of total underutilisation, 10,3% from insufficient demand and 1,6% from shortage of skilled labour[xxvi] (**Appendix X**). For Logoplaste, shortage of skilled labour may be even higher due to the quality and innovation of their products. Therefore this factor is crucial when analysing expansion to the country.

2.3. Flexible packaging

To expand to South Africa or any other African country, the analysis of the suitable type of technology is crucial. Due to the characteristics of the country such as small purchasing power still, which make families buy smaller portions of products, and the existence of smaller margins for the consumer good companies makes the use of rigid plastic packaging harder. Therefore, using flexible plastic packaging may be a good option. Flexible packaging has several advantages when compared with rigid plastic packaging, especially flexible pouches. Pouches are considered to be lighter, convenient and more portable, as well as, having high shelf appeal and provide more differentiation [xxviii] due to the availability of a wide range of packaging sizes. It is

possible to have very small sizes of this packaging, something that does not happen with rigid plastic packaging. Smaller sizes and the requirement of fewer resources such as raw materials and fossil fuel, reduce CO^2 emissions leading to smaller environmental impacts. This makes this new technology cheaper than rigid packaging in terms of production, transportation and even recycling [xxix], leading to cost reductions for producers, as well as for the consumer goods companies (examples of flexible packaging in **Appendix XI**). Flexible packaging has been gradually increasing its presence all over the world, including South Africa. For the current Logoplaste clients/partners in the country (**Appendix XII**) it was possible to see that Nestle already has Nescafe 3-in-1 and Maggi Noodles in flexible packages[xxx].

2.4. Rigid Plastic Packaging Vs. Flexible Plastic Packaging

Grasp the differences in the implementation of the different technologies is the key to later analyse its internationalization. Therefore, it is important to have a deep understanding of flexible packaging as well. Due to that, all the information related to that subject is based on the experience of a Portuguese flexible packaging company, Plasteuropa. This was found to be the best way to have a real and reliable source to understand the needs, procedures and implications of a factory that produces this type of packaging. Plasteuropa is a medium size Portuguese company that produces plastic flexible packaging and paper bags (see detailed information about Plasteuropa - **Appendix XIII**). Logoplaste and Plasteuropa will be compared to perceive the differences and similarities of rigid plastic packaging and flexible plastic packaging.

2.4.1. Rigid Plastic Packaging:

Inputs for rigid packaging are plastic resins, namely PET (Polyethylene terephthalate), HDPE (High-density polyethylene) and PP (Polypropylene). These raw materials are

produced by multinational chemical manufacturers such as Dow Chemical, Exxonmobil, Repsol, Lyondelbasel and SABIC that have multiple locations worldwide and give Logoplaste quantity discounts[xxxi]. **Machinery** and main equipment used are extrusion machines, injection machines and blowing machines (all with a cost of around 300 000€), which are acquired to companies such as Sidel, Sipa and Husky. There is auxiliary and complementary machinery such as silars and compressors. In countries with energy supply problems and high variation of temperatures, energy generators and air compressors are also necessary[xxxi].

The **production process** of these packages start with the mix inputs. These are transformed, becoming a malleable plastic substance through the use of extrusion machines (HDPE and PP) or injection machines (for PET). Then, this material is given shape by the blowing machines. At this point, it is possible to observe the final package that now only need to have cut and removed plastic extras/leftovers[xxxi].

Logoplaste **human resources** policies are standardized globally, but still adapted to each client. When opening a new factory local people start being trained beforehand (at least 6 months). They start with a factory manager, which already belongs to the company and stays there a few months. People who are in the logistical area stay longer, until it is assured the plant is working according to the company standards. When people with enough knowledge do not exist in the country, they may be hired from other countries. Though, people for administrative and mechanical fields should be local. To avoid differences of policies and behaviours among Logoplaste's different plants, all the factories communicate between them, there are standardized metrics, and modules given to employees are the same everywhere. One of the hardest things is to reproduce Logoplaste culture. Implement the just-in-time production is hard, as people

in some countries do not have the mentality of solving problems exactly when they arise, which in this case, where there is no stocks, may lead to problems, e.g. delays[xxxi].

Quality of the packages is one of the distinctive factors of the company. Mostly and foremost, it is a company that deeply cares about the quality of their products. They have several quality policies applied and for them quality has to exist independently of the country norms they are subjected to. One of the reasons why the company has not expanded to Africa so far is the local low quality standards. Beverages, food and detergents in Africa are priced so low (meaning less margin for the packaging) that the market could not support their cost[xxxi].

As previously mentioned the **business model** is based on having fully dedicated plants to a certain partner/client. Therefore, factories may cost 5M€ to 20M€ and the green field approach (FDI) is usually the chosen one. Though, in the past acquiring factories or a company working in the same sector has happened. Usual phases of implementation are: 1. Previous study takes from 3 to 6 months; 2. Gather contacts and implementation (3 to 6 months); 3. Working in full speed - the period to train people, produce first packages and see if everything is working well, while matching security rules and quality standards, (9 months); 4. Manufacturing unit in normal production process (6 months). This process results from the business model and is one of the reasons why Logoplaste margin is in this industry high segment[xxxi].

2.4.2. Flexible Plastic Packaging:

Flexible packaging **inputs** in Plasteuropa can be plastic films (biaxially oriented polypropylene-BOPP, polyethylene terephthalate-OPET, biaxially-oriented polyamide film-OPA, Cast Polypropylene-CPP) or HDPE (high density polyethylene) or LDPE (low density polyethylene) that the company converts in order to make a plastic film.

The major polyethylene's (HDPE and LDPE) suppliers are petrochemical companies such as Repson and ExxonMobil or other companies of medium size. For the films there are several suppliers that can be local, regional or global. For example, for the BOPP it can be Casfil, Poligal and Jindal. These raw materials suppliers provide quantity discounts, i.e. rappel discounts[xxxii]. The main **machinery** used is extrusion machines, printers/impressers (1M€ to 3M€), lamination machines, cutting machines (30 000 € to 100 000€) and/ or winding machines (100 000 €). The pricing of the machinery can vary widely accordingly to size and features and can be subjected to negotiation. Though, if there are price decreases, it usually means that the features will decrease or any other trade-off will happen. Suppliers of machinery are Comexi (Spain), Dolci (Italy), Schiavi (Italy) and Reiffenhausen (Germany)[xxxii].

In the case of flexible packaging the **production process** is very different from the one of flexible packaging. If the resin used is polyethylene (PE) then there is the extrusion, which makes PE become a plastic film. Then it is printed/impressed with the final appearance that the package will display, this means having already impressed the final art design and labels. Finally, it goes to the cutting machine from where the final product gets out. In Plasteuropa the final product are plastic bags in the case of PE. Other possible process starts with the plastic films, which were previously bought (BOPP, OPET, OPA, CPP) and go directly to the impression machine. After the films are printed, they are sent to the lamination machine that is responsible for assembling and glue the plastic printed film to another film (usually metallic), creating a multilayer packaging (sometimes with more than two films), providing protection for the food (e.g. chips) against humidity, food moister, oxygen, etc. In case the future content of the packaging does not require any special protection, the laminating process is skipped.

Final step is the winding, where the plastic is cut and folded creating the final film of flexible plastic packaging[xxxii].

In terms of **human resources** and training, flexible technology is not very different from rigid packaging, except that training is longer for specific positions due to the level of experience required. For the cutting machines employees are able to start working after just a few days of training, in the print and informatics positions a higher level of specialization is required. The high level of specialization leads to a smaller number of companies in the field of flexible packaging as it results in entry barriers. Though, the level of specialization depends on the size and quality level of the printing. As an example, if a machine prints with more colours, employees responsible for that machine need to have more knowledge, requiring more training time. Just like with Logoplaste, the main issues when expanding to Africa may be the lack of skilled human resources.

Quality standards for plastic flexible packaging are very similar with the ones of Logoplaste due to the same final use of the packaging. Plastoeuropa is certified with ISO 9001, ISO 22 000 and ISO 14 000. These standards are very common among companies in this industry, as they are required by multinationals for the production of their packaging. The quality control is done during the whole process and with samples.

Plasteuropa **business model** is based on having offsite production facilities, where some activities such as transportation are outsourced. This is a more common approach than Logoplaste's. They do not have a factory fully dedicated to a certain client due to a minimum scale required. When considering implementing a new factory the usual step is buying a factory that is already working in the same industry, to simultaneously acquire tacit knowledge, machinery and possible clients. Just like Logoplaste, there is no pre-filling. Concerning stocks, the company has "tailor-made stocks" meaning that

production matches the quantity ordered by clients. Though, unlike Logoplaste they do not have just-in-time delivery and so, the products stay in their facilities until clients go get them. Concerning their pattern of internationalization, they expand to countries due to the language spoken, meaning, expand to countries where Portuguese is spoken[xxxii].

To sum up, the inputs between the two technologies vary, but not much, they still come from chemical companies or in case of the films from other companies. Machinery is different and flexible technology machinery is more expensive. Then, the process is different and so, human resources needs are also different, as training for the printing (part of flexible packaging) takes a lot longer than for rigid plastic packaging. Due to the minimum scale of 20 000 tons of plastic resultant from the high costs of setting up machines (especially for printing in the flexible packaging's), Plasteuropa business model is completely different from Logoplaste. It is not possible to have a plant dedicated to just one client, which leads to the inexistence of just-in-time delivery and very close relationships with clients that led to high integration in their supply chains. Concerning the value chain, there are major differences. Firstly, the margin is very different, while for Logoplaste is of 19,6%, for Plasteuropa is lower, 3% to 5%. Plasteuropa profits come from the volume of production and not from big margins. For both companies raw materials are considered to be a big part of the cost structure, around 50% but it can vary from 30% to 70% (depending on the volume of production), it is higher when volumes are bigger and machines setting costs/ human costs tend to decrease. For Plasteuropa around 35% are costs of production, 10% with people and 5% to quality and transport, which for Logoplaste should be lower as their costs with transportation are almost inexistent [xxxi] [xxxii](**Appendix XIV** - Logoplaste Value chain).

2.5. Porter's 5 Forces for Flexible Packaging in South African Market

Threat of substitutes: The flexible packaging industry has several substitutes, which depend significantly on the products contained inside the packaging. Therefore, this analysis will be restricted to food, beverages and detergents that are the main sectors to which Logoplaste provides packaging. In these three sectors, flexible plastic packaging has as main substitutes rigid plastic packaging solutions, glass, metal and board packaging. In South Africa, packaging price represents a big portion of the final price of a product. Therefore, packaging companies clients are very price sensitive, and try to balance the price of their packaging options with quality. Major alternatives such as board or glass do not offer great quality or even security as they may break or cause spillovers during transportation. Therefore, rigid plastic packaging and flexible packaging are the preferred options in the consumer goods industry. Threat of substitutes is medium for the flexible packaging in South Africa due to the easiness of substitution, low differentiation of the plastic rigid packaging and the considerable smaller price of flexible technology when compared with the rigid.

Threat of new entrants: Entering this industry implies significant investment and scale economies, which lead to a reduction of its attractiveness. In South Africa, the industry is already with a considerable size (see competitors - **Appendix XV** - and competition analysis in **Industry Rivalry section**), with incumbents who have big market share and access to distribution channels. Therefore, the entry of new firms would decrease profits even further, covering only minimum average costs. In this industry patents do not have a significant impact, which leads to low entry barriers. To conclude, due to the high economies of scale, low product differentiation, difficult access to distribution channels and low government policy, the threat of new entrants is medium/low.

Bargaining power of suppliers: Suppliers are mainly petrochemical companies, which provide the raw materials such as chemical resins and plastic manufacturing companies that produce plastic films. Most petrochemical companies are multinationals; whose supply is a big part of the industry. Though, the company has their procurement activity well developed, being able to negotiate and select suppliers by quality standards. Logoplaste has a long-history of dealing with suppliers, which already provide discount quantities. Due to the concentration of the suppliers, there are few substitutes and the difference in prices is not very different. On the positive side, it is important to refer the low switching costs, unless a long-term contract was signed, and low differentiation of raw materials. Bargaining power of suppliers is considered medium.

Bargaining Power of Buyers: In South Africa the market of flexible packaging is concentrated with a small number of companies with a huge market size and then a massive number of small ones. Therefore if a buyer wants to have access to a huge quantity of flexible packages it does not have much offer, especially if they want high quality packages. Though, this is an industry where the clients, due to its size, have a considerable level of price information and therefore can compare prices easily. Besides, switching between producers does not bring any significant costs, forcing prices to go down. At the same time, due to the wide availability of rigid plastic packages, which work as direct substitutes, the bargaining power of buyers is medium/high. Though, because of Logoplaste different business model where it creates long-term contracts the bargaining power of buyers would decrease significantly.

Industry Rivalry: This is an industry, which faces in South Africa high competitive rivalry as the increasing purchasing power of South Africans led in the last years to increasing consumer goods consumption. These consumer goods companies' value

packaging quality, but they still search for increasing profits. They look for cheapest packaging alternatives such as flexible packaging, which led to the development of this industry in the country and a focus in innovation as a source of sustainable competitive advantage. There are some major players in this industry, some of them produce other types of packaging and do not offer flexible packaging in South Africa yet (Constantia), companies with divisions fully focused in flexible packaging (Nampak flexibles, CLP), and then fully south African companies that also produce flexible packaging (Afripack) or International companies that are present in the country and produce flexible packaging (Nampak, Tadbik, Huhtamaki, Mondi) (information about competitors - **Appendix XV**). Main competitors of Logoplaste in this industry in South Africa are Nampak Flexibles (South Africa), Afripack (South Africa), Huhtamaki (Finland) and the Tadbik group (Israel) with CLP division. These are the main competitors due to their big size and power in the flexible packaging industry in the country; working with some of Logoplaste partners/clients; or producing packaging for products that Logoplaste may want to provide packaging for, such as wine. These companies have several advantages. However, none of them offers the same value proposition and business model of Logoplaste, which may be an advantage (see if Logoplaste keeps current value proposition and business model in **section 2.7**).

As it is possible to presume, direct competition in the country is very high. Then there are also other less obvious competitors such as machine suppliers. One of the trends is for machinery suppliers to offer an integrated solution, where machines that use films and raw materials are provided by them. These machines can be set up in the clients' facilities and they are responsible for the whole process (e.g. Swedish company Ecolean[xxxiii]). TetraPak also works in a similar way.

2.6. Logoplaste with Flexible Packaging in South Africa

2.6.1. Industry mapping for Logoplaste in South Africa

The industry mapping of Logoplaste for South Africa will be different from the initial one (Logoplaste Industry mapping for rigid flexible packaging – **Appendix XVI**) because of the different location and different technology. **Raw materials** are now films (BOPP, OPET, OPA and CPP), HDPE and LDPE. Fima Films SA is the only producer of BOPP in the country; Duroplastic and MBT South Africa (Pty) produce and import several different polypropylenes and BASF is a large chemical company. There is at the same time a large range of small local producers, which is an advantage. In case the volume or quality of their products are not enough, it is possible to import the raw materials from different multinationals. In terms of **equipment** main suppliers could be the same as Plasteuropa, meaning Comexi, Dolci, Schiavi and Reiffenhausen that would send their machinery to South Africa. In terms of auxiliary equipment such as cylinders, Rototec, a South African company, could supply them. **Partners/Clients** would be the same companies to which Logoplaste already cooperates and that would be present in the country such as Coca-Cola, P&G, among others (complete portfolio of Logoplaste partners present in South Africa - **Appendix XII**). **Legal framework** would include packaging associations in South Africa such as PACSA (Packaging Council of South Africa), IPSA (Institute of Packaging SA), Plastic Convertors Association SA (PCA) and Plastics Federation of South Africa (PFSA). Concerning **variable inputs, research and development centers and financial institutions,** they would not differ much from what described in the Logoplaste Industry Mapping for Portugal, except that outsourced activities would be to south African companies and financial institutions would be in South Africa as well.

2.6.2. SWOT analysis for Logoplaste in South Africa

The following table (**Table I**) sums up the strengths, weaknesses, opportunities and threats for Logoplaste in this market. For a further analysis on how these factors interact see **Appendix XIX** for TWOS analysis.

Table I - SWOT Analysis

Internal Origin	**Strengths** Different business model, focused in long-term contracts. Open-book policy Just-in-time delivery. Several partners already in the country	**Weaknesses** In-house or nearby plants require a minimum scale, which is not easy to find in South Africa Company usually has high margins that may not be translated to this market. Find employees who can fit the company culture
External Origin	**Opportunities** Increasing presence of consumer goods companies due to increasing private expenditure. Flexible technology use in South Africa is increasing. Incentives to FDI Competitive labour costs	**Threats** Large number of competitors. Competitors have an established presence High criminality rates in the country Problems dealing with issues related with insecurity (high criminality) or energy.

2.7. Logoplaste Competitive advantages for flexible packaging in South Africa

One of the key issues is to analyse if Logoplaste competitive advantages and other factors that make them succeed in rigid packaging (see section **1.2.** for **Business Model and Competitive Advantages**) will be translated, not only to the market of flexible packaging, but also allow a successful internationalization to South Africa. Intangible assets such as long-term relationships, reputation and innovation were considered a sustained competitive advantage. This is possible to transfer if some measures are taken. Firstly, the iLab would need to invest in understanding better the new technology. If Logoplaste is able to be on top of innovation in flexible technology it would be a great asset. Reputation and the long-term relationships could still be a competitive advantage, as long as Logoplaste is able to keep the same partners. Concerning their temporary

competitive advantage, open-book policy with competitive prices, it would be also possible to maintain. However, just-in-time delivery/supply chain integration would be harder, because to have it, is necessary a plant fully allocated to a certain client. Though, due to the minimum scale required and to the production size of possible clients in the country, it would be harder to achieve. Therefore, that is no longer a competitive advantage. More than analyzing comparative advantages, the acknowledgement of Logoplaste's employees hard and soft skills is very important. Soft skills, in this case, are the quality management, procurement capacity and corporate culture. Hard skills are knowledge of the engineering process management, quality standards, and minimum production scale, meaning tangible skills. Due to the new technology, hard skills are unlikely transferred because it requires completely different equipment, inputs and processes. Though, soft skills can still work in favor of the company. Logoplaste's wide experience on dealing and building relationships with suppliers can be transferred to the flexible packaging procurement. Even if suppliers are different, they all work similarly and so the knowledge on how to deal with them is always useful. Other soft skills are their quality management skills and good costumer relationship management. Logoplaste knows how to build close relationships with customers, where they feel that partnerships are created. This is not common in the flexible packaging South African market, so it is a very important distinguishing factor. Besides, their focus in just-in-time is also transferable. The possibility to be inside the clients' plants does not exist, but it is possible to have a constant transfer of information with the client and integrated production allowing Logoplaste to keep just-in-time delivery.

3. Analysis of the mode of Entry

When internationalizing there are different modes of entry to choose from. They can be more or less risky, provide more or less control and require different investment intensity. They can be slipt between **strategic alliances and FDI –** mergers and acquisitions, joint ventures and Greenfield and **contractual modes** - indirect export, direct export, licensing and franchising. From Logoplaste point of view only strategic alliances and FDI and direct export from the contractual modes would be suitable for the reasons explained below and due to the under-utilisation levels and lack of demand.

Joint Ventures are usually done to improve competitive position by eliminating the competitor, to access know-how, to create quality improvement or economies of scale. Though, for Logoplaste this does not seem to be the best entry strategy due to industry characteristics. These are business-to-business (B2B) companies that do not need high knowledge of the final consumer. At the same time, South African companies may not have the same packaging quality standards and printing expertise, so their knowledge will not bring much value. Therefore, joint venture is not a good option. In a **Merger and Acquisition (M&A),** Logoplaste would acquire a local company and establish itself as the new owner. This would be good to acquire knowledge about flexible packaging. Though, the acquired company employees may have problems in adapting the existent company culture to Logoplaste's one. In M&A it would not be possible to have a dedicated plant to each of their clients, but this may always be an issue due to the minimum scale required. Currently even if a big player is interested, in South Africa it will hardly have enough production scale to have a dedicated plant. Though, with the expected growth of the consumer goods industry, it may be a possibility in the future. Other problem would be the market concentration; there are a lot of major big players.

Logoplaste would only be able to acquire companies of small size, because acquiring a big player would require very high capital expenditures. Therefore, the specialization of the printing capabilities would not be very developed and may not match Logoplaste quality standards. This is another case where the advantages may not be enough to overcome the disadvantages, which would make a merger and acquisition not viable.

Greenfield is the usual strategy for Logoplaste; it requires a high level of investment and risk, but it leads to a big level of control over operations. With this approach, Logoplaste is able to keep the current business model and have a dedicated plant to each client, as well as keeping the quality, innovation and procurement polices that is known for. However, it would not allow Logoplaste to acquire knowledge of flexible technology from a company that is already in that market. Simultaneously, the level of specialization required to the printing activity and the minimal scale necessary would be a problem. Besides the investment of building a new factory, Logoplaste would need to invest a lot of time and effort in understanding this completely different market.

Direct Export could be from Portugal, any other country in Europe, or even from factory built in some country in Africa to South Africa; and it would not require fixed capital investment for Logoplaste. However, it would help the company to start penetrating the market and gain experience/ learn about the market without significant risk. Though, this strategy makes products very sensitive to currency fluctuations (South African currency varies widely in the last years due to its close proximity to the global environment[xxxiv]) and tariffs. Disadvantages of direct export are the slow learning experience resultant of the small market exposure, and the low control of operations (product pricing and quality). However, as this is a B2B, problems would be smaller as Logoplaste would have higher control. For example, it would have control

over the pricing, as it would be selling it to the final user. Direct export would also help increase profitability and productivity, because it allows the increase of economies of scale without incurring in costs associated with building a new factory for a technology whose level of knowledge is not yet developed and in a country where competition is very high. It would be good to start developing relationships and create reputation in this new market. Direct export looks the most viable alternative, being studied below.

4. Country Selection Grid

The market size and difficulty to implement a dedicated plant to a unique client in South Africa lead to problems to fulfill the minimum scale requirements. Consequently, a new approach will be proposed. The goal is to build new facilities in an African country and from that factory export to several clients in the African continent. The analysis of likely countries to implement this factory will be restricted to South Africa, Nigeria and Mozambique. In order to perceive differences between the three countries and reach a possible common implementation country, several factors are considered as measure and different weights were given to achieve a more accurate conclusion. See how each country ranks in these factors and the final scores in **Appendix XX**. Nigeria is the country that scores higher in the grid. Details on how to implement a factory there will be given by my Field Lab partner Catarina Miguel (**"Logoplaste: Implementation of Flexible Packaging Technology and Internationalization to Nigeria**"). From now on, this paper will be focused on how can Logoplaste internationalize to South Africa through the use of a Nigerian factory. The mode of entry would be direct export and assumes that Logoplaste would be willing, not only to adopt a completely new technology, but also to make some major changes to the current business model.

In case of flexible packaging direct export from Nigeria to South Africa, it would be important that Logoplaste keeps a close relationship with their partners and focus on quality and on having just-in-time delivery. Besides, it is important to analyze the costs of trade. South Africa has a free trade agreement with the EU, Mozambique and Zimbabwe[xxxv] and is part of SACU (South African Customs Union). Due to this, trade inside the SACU does not face customs duties and all members apply a single tariff to trade with non-members[xxxvi]. All flows of good to the country must "be declared on the prescribed bill of entry"[xxxvii] and a company planning on exporting to the country must register as an importer. Due to this, importing plastic packaging that is enclosed in the manufactures industry is 91,2% duty-free, which is quite good[xxxviii](**Appendix XXI**).

5. Implementation Plan: Direct Exporting

Men: It would be important to have two representatives in the country (in Cape Town and in Johannesburg) that could build relationships and give support to clients. When establishing the first contacts with the clients in the country, it would be a major plus to have some of the current Logoplaste staff there. Besides, it would be necessary hiring a lawyer to register the company as an importer in South Africa and to deal with other legal matters such as contracts. **Minutes:** It would be important to first understand when the factory in Nigeria will be finished. Six months before the factory is finished Logoplaste should start contacting their prospective clients and 3 months after that, start creating contacts. Registering, an importer should happen as soon as possible. Having a reliable transportation company working for them in the country should be finished two weeks before the factory opens. Twice a year a team from Logoplaste will visit their clients in order to manage expectations and ensure that clients are satisfied with the service and products provided. **Money:** the process of being registered as an importer,

products transport, lawyer, two representatives and travelling expenses of Logoplaste teams going to the country will be the costs associated with this implementation. **Memo:** It will be necessary to create a memo to monitor if the implementation is being successful. This memo will comprise objectives, measurements and initiatives for this project[xxxix].

6. Conclusions and Recommendations

Logoplaste is a major rigid plastic packaging manufacturer of the fast-moving consumer goods industry in several developed countries. Though, there as been an increase of income in the African continent, which may indicate a potential new market. South Africa is a good starting point for the internationalization to this continent. The country is one of the most developed African countries and faces an increasing purchasing power of its middle class, which may lead to increasing consumption. This, in addition to characteristics of the market led to the conclusion that a new technology, flexible packaging, would be the best way to approach the market. After the market, competition and characteristics of flexible technology analysis, one of the solutions found to expand was to build a plant in Nigeria and then export to South Africa. Though, I believe that this would require significant effort from Logoplaste. In order to be viable, it would need to expand to a totally need technology to which it does not have any experience, change it's basic business model and enter a totally new and unknown market, where competition is just too high. In my opinion, these are just too many changes, which make this internationalization very risky. Therefore, the company should not expand to South Africa, at least now, and should consider other strategies such as start producing flexible technology where it is already present or leverage their current knowledge in rigid packaging by looking at other markets in Europe, among others.

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